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Application/Control No.

10/046,519

Examiner

Joseph E. Avellino

Applicant(s)/Patent under Reexamination

GRAUPNER ET AL.

Art Unit

2143

| <b>√</b> | Rejected |   | - | (Through numeral)<br>Cancelled |  | v | Non-Elected  | A | Appeal   |
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| =        | Allowed  | ; | + | Restricted                     |  | ı | Interference | o | Objected |

|   | im       | Date    |           |          |          |          | Cla             | aim      |          |          |              | C        | ate                                 |          |           |          | ]        | Cla      | aim     |         |   |          |          | ate                | •               |          |   |          |           |          |          |   |
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|   |          |         | $\Box$    | $\sqcap$ |          |          |                 |          |          |          |              |          |                                     |          |           | Ī        | . T      | T        | T       |         |   |          | <u></u>  |                    |                 |          |   |          |           | T        | T        |   |
| <u>a</u>  | Original | 5/11/05 | 6/14/05   |          |          |          |                 |          |          |          | Final        | Original |                                     |          |           | ٠        | -        |          |         | -       | 1 | Final    | Original |                    |                 |          |   | i        |           |          |          |   |
| Final   | rig      | 7       | 2         | - 1      |          |          |                 |          |          |          | 一造           | Ţ.       |                                     |          |           |          |          |          |         |         |   | ᇤ        | rig      |                    |                 | 1        |   |          |           |          | - 1      |   |
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|   | 1        | 1       | $\sqrt{}$ | 寸        | T        |          | $\neg$          |          | 7        |          | -            | 51       | П                                   |          | $\exists$ | $\neg$   | _†       | $\dashv$ | ┪       |         | 1 |          | 101      |                    | П               |          |   |          |           | T        |          |   |
| <del>-  </del>  | 2        | V       | V         | _        | $\dashv$ |          | 一               |          | $\neg$   | $\neg$   |              | 52       |                                     |          |           |          | _        | +        | _       | +       | 1 |          | 102      |                    | Н               |          |   |          | $\neg$    | 寸        | $\neg$   |   |
|   | 3        | 1       | ᅥ         | _        | _        |          |                 |          | $\neg$   |          |              | 53       | Н                                   |          | $\neg$    | _        | _        | $\top$   | $\top$  | $\top$  | 1 |          | 103      |                    | Н               |          |   |          | $\Box$    | $\dashv$ | _        |   |
|   | 4        | 7       | 1         | $\dashv$ | $\dashv$ | $\neg$   |                 |          | 一        | _        | -            | 54       |                                     | -        | $\neg$    | Ť        | $\neg$   | $\top$   | $\top$  | +-      | 1 |          | 104      |                    | Н               |          | _   | _        |           | _        | _        |   |
| -   | 5        | 1       | 1         | $\dashv$ | ᅱ        |          |                 |          |          | ┥.       |              | 55       | Н                                   |          | $\dashv$  |          | 一        | _        | _       | -       | 1 |          | 105      |                    | Н               |          |   |          |           | 寸        | 1        |   |
|   | 6        | 1       | ₹         | $\vdash$ | -        | _        | $\dashv$        |          |          | 一        |              | 56       | Н                                   |          | $\neg$    |          | -        | +        | +       | $\top$  | 1 |          | 106      | _                  | Н               |          |   |          | $\Box$    | _        | _        | _ |
|   | 7        | 7       | ↲         | $\dashv$ | -        |          | $\dashv$        |          | -        | $\dashv$ |              | 57       | Н                                   |          |           | $\dashv$ |          | $\dashv$ | +       | ╅       | 1 |          | 107      | _                  | Н               | _        | -   |          |           | _        |          |   |
|   | 8        | V       | ₹         | $\dashv$ |          | -        | $\dashv$        |          |          | $\dashv$ |              | 58       | Н                                   |          | $\dashv$  | $\dashv$ | 一        | ╅        | 十       | +       | 1 |          | 108      |                    | Н               |          |   |          | $\vdash$  | $\dashv$ | ┪        |   |
|   | 9        | 1       | i         | ┪        | -+       | -        |                 |          | $\dashv$ | $\dashv$ | -            | 59       | $\vdash$                            |          | $\dashv$  | $\dashv$ | $\dashv$ | 十        | +       | +       | ┪ |          | 109      |                    |                 |          | _   |          |           | -        | -1       |   |
| $\vdash$  | 10       | 1       | Ť         | $\dashv$ | $\dashv$ | $\dashv$ | $\vdash$        |          | $\vdash$ | -        | <del> </del> | 60       |                                     | $\vdash$ | $\dashv$  | $\dashv$ | $\dashv$ | +        | 十       | _       | ┨ |          | 110      |                    | H               |          |   |          |           | -        | $\dashv$ |   |
| $\vdash \vdash \vdash$  |          | 1       | *         | $\dashv$ |          | $\dashv$ | $\vdash$        | $\vdash$ |          |          | -            | 61       | Н                                   | -        | $\dashv$  | $\dashv$ | $\dashv$ | +        | +       | ╁       | 1 |          | 111      |                    | Н               | $\vdash$ |   | H        | $\vdash$  | $\dashv$ | $\dashv$ |   |
| $\vdash \!$ | 11<br>12 | 1       | 1         | $\dashv$ |          |          | $\vdash$        | $\dashv$ | $\vdash$ | $\dashv$ | -            | 62       | $\vdash$                            | Н        | -         | -        | $\dashv$ | +        | +       | +       | 4 | <u> </u> | 112      |                    | Н               | $\vdash$ |   | $\vdash$ | $\dashv$  | $\dashv$ | $\dashv$ | _ |
| $\vdash \vdash \vdash$  |          | 1       | <u> </u>  | -        |          | -        | $\vdash$        | $\dashv$ | $\dashv$ | $\dashv$ | -            | 63       | $\vdash$                            | $\vdash$ | $\dashv$  |          | $\dashv$ | +        | +       | +-      | 1 |          | 113      |                    | Н               |          |   | $\dashv$ | $\vdash$  | $\dashv$ | $\dashv$ | _ |
| $\vdash \vdash \vdash$  | 13       | 7       | 7         | -        |          | -        | $\vdash$        | $\vdash$ |          | $\dashv$ | -            | 64       | $\vdash$                            | -        | $\dashv$  |          | $\dashv$ | +        | +       | +-      | - | <u> </u> | 114      |                    | $\vdash$        | $\vdash$ |   | $\dashv$ | $\vdash$  | $\dashv$ | -        |   |
| <del>                                     </del>                                  | 14       |         |           |          | -        |          | $\vdash$        | $\vdash$ |          |          |              | 65       | $\vdash$                            | $\vdash$ | $\dashv$  |          | $\dashv$ | +        | +       | +       | 1 |          | 115      | _                  | $\vdash \vdash$ | $\vdash$ |   | -        | $\vdash$  | $\dashv$ | $\dashv$ |   |
| ├   | 15       | 1       | 1         |          |          | $\vdash$ | $\vdash \vdash$ | $\vdash$ |          | $\dashv$ | -            | 66       | $\vdash$                            | $\vdash$ | $\dashv$  | $\dashv$ | $\dashv$ | +        | +       | +       | + |          | 116      |                    | $\vdash \vdash$ | $\vdash$ |   | -        | $\dashv$  | $\dashv$ | $\dashv$ |   |
| $\vdash \!$ | 16       | 1       | <b>√</b>  | $\dashv$ | _        | $\vdash$ | $\vdash$        |          | -        | $\dashv$ | -            | 67       |                                     |          |           | $\dashv$ | $\dashv$ | +        | +       | +       | - |          | 117      |                    | $\vdash \vdash$ | $\dashv$ |   |          | $\dashv$  | $\dashv$ | $\dashv$ |   |
| -   | 17       |         |           | $\dashv$ |          |          |                 |          | -        | _        | <u> </u>     |          | _                                   |          |           | -        | $\dashv$ | +        | -       |         | - |          |          |                    | Н               |          |   | $\dashv$ |           | +        | -        |   |
|   | 18       | ٧       | <b>√</b>  |          |          |          |                 |          |          | _        | ļ            | 68       |                                     |          | -         | -        | -        | +        | -       |         | 4 |          | 118      | _                  | Н               |          |   |          |           | -+       |          |   |
| igsquare  | 19       |         |           |          | _        |          |                 |          |          |          |              | 69       |                                     |          |           | $\dashv$ | -        | -        |         |         |   |          | 119      |                    | Н               |          |   | _        |           | _        |          |   |
| $\vdash \vdash$   | 20       |         |           | -        | _        |          |                 | _        |          |          | <u> </u>     | 70       |                                     |          |           |          |          | -        |         | +       | 4 |          | 120      |                    | Н               |          |   | $\dashv$ |           | -+       |          |   |
| igwdot  | 21       |         | _         | _        | _        |          | _               |          |          | -        | <u> </u>     | 71       | Ŀ                                   |          | _         |          | -        | 4        | 4       | +       | 4 |          | 121      |                    | Н               |          |   | _        |           | _        | _        |   |
| $\sqcup$  | 22       |         | _         | $\dashv$ | _        |          | $\sqcup$        |          |          | _        |              | 72       |                                     |          | _         |          |          | -        | -       | +       | 4 |          | 122      |                    | Н               |          |   | _        |           | _        | _        |   |
| $\sqcup$  | 23       |         |           | _        | _        |          | _               |          | _        | _        | <u> </u>     | 73       | $ldsymbol{ldsymbol{ldsymbol{eta}}}$ |          | _         |          |          | $\dashv$ | +       | +       | 4 |          | 123      |                    | Ш               |          |   | _        |           | _        | _        |   |
| $\sqcup$  | 24       |         |           | _        | _        |          | Щ               | _        |          | _        | <u> </u>     | 74       |                                     |          | _         | _        |          | -        | _       | $\perp$ | 4 |          | 124      |                    | Ш               |          |   |          |           | _        | _        |   |
| $\sqcup$  | 25       |         | _         | _        | _        |          |                 |          |          | _        | <u> </u>     | 75       |                                     |          | _         | _        | _        | $\perp$  | _       | _       | 4 |          | 125      |                    | Ш               |          |   |          |           | _        | _        |   |
| $\square$   | 26       |         |           | 4        |          |          |                 |          |          | _        | <u> </u>     | 76       |                                     | _        | _         |          |          | +        | +       | +       | 4 |          | 126      |                    | Ш               |          |   |          | $\dashv$  | _        | _        | _ |
| $\sqcup$  | 27       |         | _         | _        |          | _        |                 |          |          | _        | <u> </u>     | 77       | Ш                                   | Щ        | _         | _        |          | 4        | 4       | _       | 4 |          | 127      |                    | Ш               |          |   |          |           | _        | _        |   |
|   | 28       |         | _         | _        | _        |          | Щ               |          |          | _        | <u> </u>     | 78       |                                     | _        | _         |          | $\dashv$ | _        | $\perp$ | $\perp$ |   |          | 128      |                    | Ш               |          |   |          | Ш         | _        | _        |   |
| $\Box$  | 29       |         |           | _        | _        |          | _               |          |          | _        | <u> </u>     | 79       |                                     |          | _         | _        | _        | $\dashv$ | $\perp$ | $\bot$  | 4 |          | 129      | _                  |                 |          |   |          |           | _        | _        |   |
|   | 30       |         |           | _        |          |          |                 |          |          | _        | <u> </u>     | 80       |                                     |          |           |          | _        | _        | _       | $\bot$  | 4 |          | 130      |                    | Ш               |          |   |          |           | _        | _        |   |
|   | 31       |         | _         |          | _        |          |                 |          |          |          | <u> </u>     | 81       |                                     |          |           |          | _        | 4        | _       |         | 1 |          | 131      |                    | Ш               |          |   |          |           | $\dashv$ | _        |   |
|   | 32       |         |           | $\dashv$ |          |          | Щ               |          |          |          |              | 82       | Ш                                   | $\sqcup$ |           | _        | _        | $\perp$  | _       | $\bot$  | 4 | <u> </u> | 132      |                    | Ш               |          |   |          | $\square$ | _        |          |   |
| $\sqcup$  | 33       | Ш       | _         | $\Box$   | ļ        |          | Ш               |          |          |          |              | 83       |                                     | Щ        |           | _        | _        | 4        | 4       |         | 4 |          | 133      | _                  | Ш               |          | Ь.  |          | Щ         | _        | _        |   |
| $\sqcup \sqcup$   | 34       | Ш       | _         | _        | _        |          | L               | $\Box$   |          | _        |              | 84       | $\perp$                             | Ш        |           | _        | $\perp$  |          |         | -       | 1 |          | 134      |                    | Ш               |          |   |          | Ш         |          | _        |   |
|   | 35       | Ш       |           | _        | _        |          |                 |          |          |          |              | 85       |                                     | Ш        | $\square$ |          |          |          | _       |         | 1 |          | 135      |                    | Ш               |          | $oxed{oxed}$  |          | Ш         | ļ        | _        |   |
| $oxed{oxed}$  | 36       |         |           |          | $\perp$  |          | Ш               |          |          |          | ļ            | 86       |                                     | Ш        | Ш         | _        | $\perp$  | $\perp$  |         | $\perp$ | 1 |          | 136      | <u> </u>           |                 |          | $ldsymbol{ldsymbol{ldsymbol{eta}}}$   |          | Щ         | _        | _        |   |
|   | 37       |         |           |          |          |          |                 |          |          |          |              | 87       |                                     |          |           |          |          | $\bot$   | $\perp$ | $\perp$ | 1 |          | 137      |                    | Ш               |          | $ldsymbol{le}}}}}}$ |          | Ш         |          |          |   |
|   | 38       |         |           |          |          |          |                 |          |          |          |              | 88       |                                     |          |           |          |          | $\perp$  | _ _     |         | _ | L        | 138      |                    | Ш               | Ш        | L   |          | Ш         |          |          |   |
|   | 39       |         |           |          |          |          |                 |          |          |          |              | 89       |                                     | Ш        |           |          |          |          | _       |         | 1 |          | 139      | <u> </u>           | Ш               | Ш        |   |          | Ш         |          |          | _ |
|   | 40       |         |           |          |          |          |                 |          |          |          |              | 90       |                                     |          |           |          |          |          |         |         | 1 |          | 140      | $oxedsymbol{oxed}$ | Ш               |          |   |          |           |          |          |   |
|   | 41       |         |           | ▔        |          |          |                 |          |          | _]       |              | 91       | $\Box$                              |          |           |          |          | $\Box$   | _[      |         | 1 |          | 141      |                    | Ш               |          |   |          | لط        |          |          |   |
|   | 42       |         |           | $\Box$   |          |          |                 |          |          |          |              | 92       | 匚                                   | 匚        |           |          |          |          |         |         |   |          | 142      | $\Box$             | $\Box$          |          |   |          | Ш         |          | I        |   |
|   | 43       |         |           |          |          |          |                 |          |          |          |              | 93       | L                                   |          |           |          | $\Box$   |          |         |         | ] |          | 143      |                    | $\Box$          |          |   |          |           |          |          |   |
|   | 44       |         |           |          |          |          |                 |          |          |          |              | 94       |                                     |          |           |          |          | $\Box$   |         |         | ] |          | 144      | 匚                  |                 |          |   |          |           | $\Box$   |          |   |
|   | 45       |         |           |          |          |          |                 |          |          |          |              | 95       |                                     |          |           |          |          |          |         |         |   |          | 145      |                    |                 |          |   |          |           | $\Box$   |          | _ |
|   | 46       |         |           |          |          |          |                 |          |          |          |              | 96       |                                     |          |           |          | J        |          |         |         | ] |          | 146      |                    |                 |          |   |          |           |          |          |   |
|   | 47       |         |           |          |          |          |                 |          |          |          |              | 97       |                                     |          |           |          |          |          |         |         |   |          | 147      |                    |                 |          |   |          |           |          |          | _ |
|   | 48       |         |           | 1        |          |          |                 |          |          |          |              | 98       |                                     |          |           |          |          | T        | T       |         |   |          | 148      |                    |                 |          |   |          |           |          |          |   |
|   | 49       |         |           |          |          |          |                 |          |          |          |              | 99       |                                     |          |           |          | J        |          | T       | $\Box$  |   |          | 149      |                    |                 |          |   |          |           |          | _7       |   |
| , )   | 50       |         |           | $\neg$   |          |          |                 |          |          |          |              | 100      | Ι                                   |          |           |          |          |          | Т       | T       |   | Г        | 150      |                    |                 |          |   |          |           |          |          |   |